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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/058,113	03/30/98	EMA T	9801415

MM21/0402
ARMSTRONG WESTERMAN HATTORI
MCLELAND & NAUGHTON
1725 K STREET NW
SUITE 1000
WASHINGTON DC 20006

EXAMINER
WHITEHEAD JR, J

ART UNIT PAPER NUMBER
2815

04/02/99
DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/050,113

Applicant(s)
Ema

Examiner
Carl Whitehead, Jr.

Group Art Unit
2815



☒ Responsive to communication(s) filed on 1 Jul 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-34 is/are pending in the application.

Of the above, claim(s) 16-34 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-15 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claims 1-34 are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

This Office action is in response to the election and amendment filed 1 July 1998.

Election/Restriction

Applicant's election without traverse of the group I invention in Paper No. 5 is acknowledged.

Claims 15 to 34 are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b) as being drawn to a non-elected invention. Election was made without traverse in Paper No. 5.

Title

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 to 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uehara et al. in view of Hayden.


Uehara discloses a semiconductor device having a base (10), two conductor patterns (50b), a protective etch stopper film covering the upper surface of the patterns (18x), a first insulation film (32), a contact hole between the two conductor patterns (figure 6), sidewall insulation films (20a and 20b) and a plug buried in the contact hole (50a). The etch stopper film is made out of a conductive layer.

Uehara does not call the protective layers etch stop films, however this does not distinguish the invention over the cited art. Hayden also discloses the use of sidewalls and a protective layer on conductive

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patterns (figure 7). Hayden refers to his protective layer as an etch stop layer (20). It would have been obvious to one of ordinary skill in the art to modify the device of Uehara by incorporating an etch stop layer to protect the structural integrity of conductor patterns, since the technology was well known at the time the invention was made.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to (703) 308-4940.


Carl Whitehead Jr.
Primary Patent Examiner
Semiconductor Technology

CW
March 28, 1999